Servicing and Training

The introduction of the vehicles caused some inconvenience to operational units due to the unusual drive train, driving technique and complexity of maintenance.

Both drivers and fitters had to be taken away from front line units and provided with specialist training to adjust to the needs of the vehicle.

This was also the case of the officers of the Royal Engineers or Royal Army Service Corps who provided for recovery, repair and major maintenance Functions.
For a full inspection there are over 70 maintenance points on the car, which need greasing, adjusting, checking, oiling and the like. It would take an untrained fitter over 6 hours to carry out this work. But this time could be reduced significantly with experience.

Indeed it was found to be the case that experienced fitters soon became aware of which maintenance points needed frequent attention and which could be given less, despite what was written in the manual.

F9584 ,MkIA, circa 1940

The vehicles are at the "D & M School Harrogate" approximately 1941

It is assumed that D&M is an abbreviation of Driver and Maintenance and the photo was taken somewhere on the adjacent Yorkshire Moors

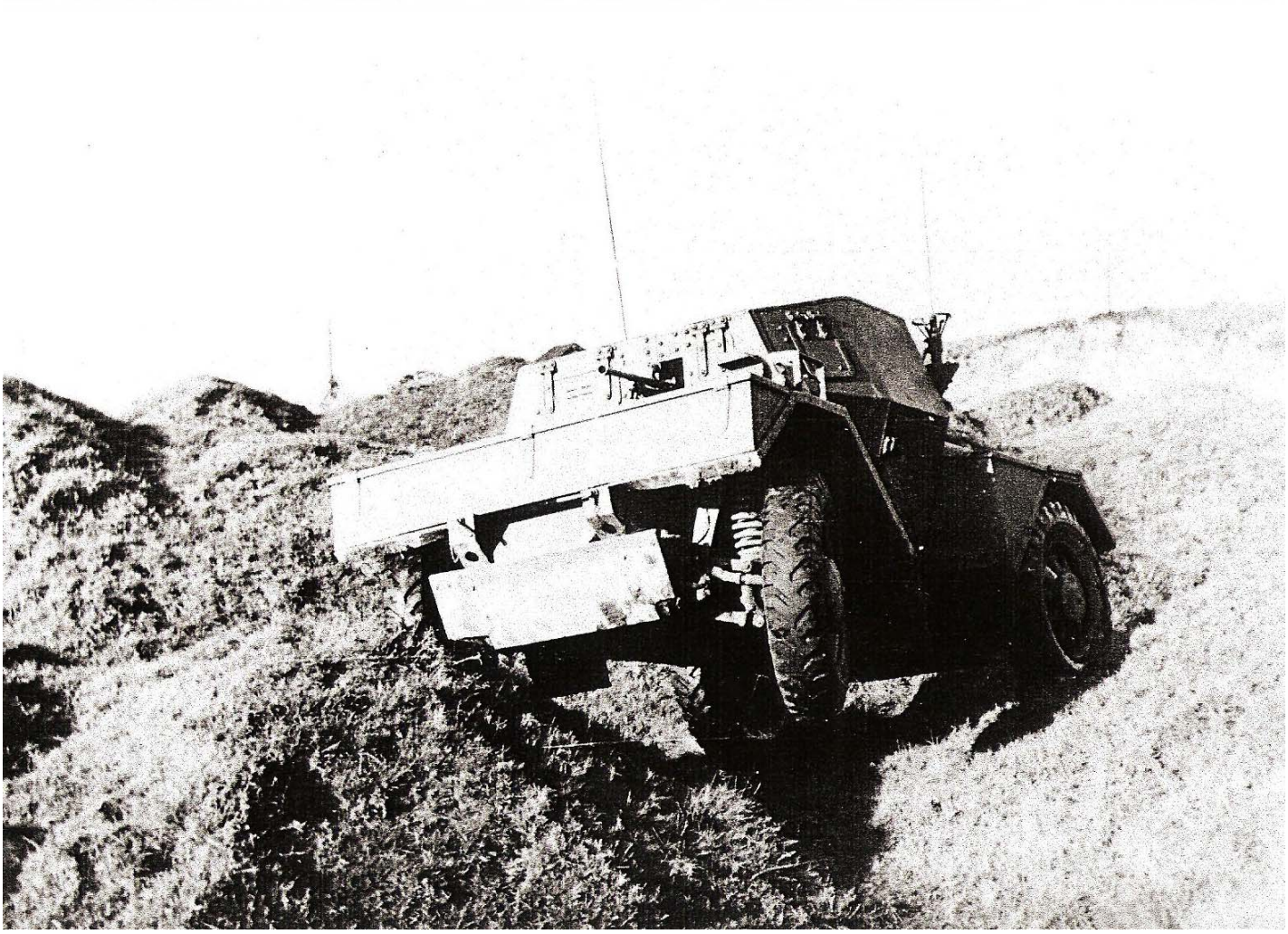
A rare photo of fitters of the RTR maintaining their car
(Photo sourced from Internet,

Off Road Ability

The unique drive train of the Daimler scout car proved to be very effective for the traversing of difficult terrain.
The 11th Hussars noted that both the Daimler armoured and scout cars performed better than the other vehicles with which they were equipped in the desserts of North Africa.

It was observed that the cars suffered fewer mechanical failures than the Morris armoured scout cars with which they were also equipped.

This is not to say however that they could not get stuck if the conditions were exceptionally muddy as the photograph below proves:



(Image courtesy Bovington Tank Museum)
photographer: by the B MOT ARM Daimler Car Co.

Description: A Dingo in off road trails, it was noted that-
'It is impossible to promote wheel spin in the scout car even when the vehicle is driven under such circumstances as here shown'

(Image courtesy Bovington Tank Museum)
Photographer: by the B MOT ARM Daimler Car Co.
Ditch crossing trials and training.

Photo Courtesy of the (internet source not recorded)

Photographer: Lambert (Sgt) of No 2 Army Film & Photographic Unit
Description: A Grant ARV of the New Zealand Division lifts a Daimler scout car, which had become bogged down in the mud near Faenza, 7 February 1945.

Fording Capability

Add details of fording and water trails.....

Photo Courtesy of the Tank Museum photo No. 4201/A/5
Waterproofing and fording trials and training, probably held in the sea of Weymouth

By the bagging of certain items like the electrical regulator and the liberal application of pitch bitumen the engine and electrical connections were made to be water tight

(Image courtesy Bovington Tank Museum)

As part of the preparations for D-Day the dingo was modified to be able to deep wade through at least 10 feet of water, here the vehicle exits the water after a trail at the research testing centre

Armoured Plate & Protection.

For efficiency, the heaviest armour on the Daimler Scout car is placed on its front.
Both tank and armoured car tactics generally require the vehicle to always face the likely direction of enemy fire as much as possible, even in defense or withdrawal operations.

The use of sloped armour (armour that is mounted at a non-vertical and non-horizontal angle) can both increase its protection on armoured fighting vehicles. For a given normal to the surface of the armour, its plate thickness measured on a horizontal plane increases and improves the level of protection.
An angled surface also increases the chance of harmlessly deflecting a projectile.

Therefore the advantageous possible effects of sloping, such as deflection, deforming and ricochet of a projectile, have been the reasons to apply sloped armour in armoured vehicles design. Another motive is the fact that sloping armour is a more efficient way of enveloping a certain volume with armour; it thus reduces a vehicle's internal volume, removing space that would go unused, thereby minimizing the vehicle's size and thus mass. The sharpest angles are usually seen on the frontal glacis plate, both as it is the hull side most likely to be hit and because there is more room to slope in the longitudinal direction of a vehicle.

Smaller caliber solid munitions typically used by small arms generally did not posses enough inertia to overcome the inherent strength of the steel. It is reported by the 11th Hussars that the armoured plate fitted to their Rolls Royce and Marmon Herrington Armoured cars was generally impervious to aircraft fire including 20mm cannon shells.

However when impacted by a projectile the armour plate even though not being penetrated resulted in some instantaneous deformation and particles of plate breaking off at high velocity. This release of material is called spalling and can be harmful to the crew. To protect crew and equipment inside from fragmentation (spalling) a thin internal sheet of material was fitted inside the outer armour. Spalling liners in the Dingo are fitted to the inside faces of the side observation ports and escape door due to the inherent loss in strength of smaller non-contiguous panels.

The armour was not sufficient however to protect against Solid artillery (SA), high explosive artillery (HE) squash head warheads typically found in anti tank munitions during the early part of world war two. More alarmingly it provided little protection against the newly developed hollow charge weapons such as the German PanzerFuast.

Photo Courtesy of the (internet source not recorded)
Photographer: Not known
Description: A sight feared by both Armoured car and Dingo Crew, The Panzer Faust was an inexpensive, recoilless German anti-tank weapon. It consisted of a small, disposable preloaded launch tube firing a high explosive anti-tank warhead, operated by a single soldier

Mine Protection.

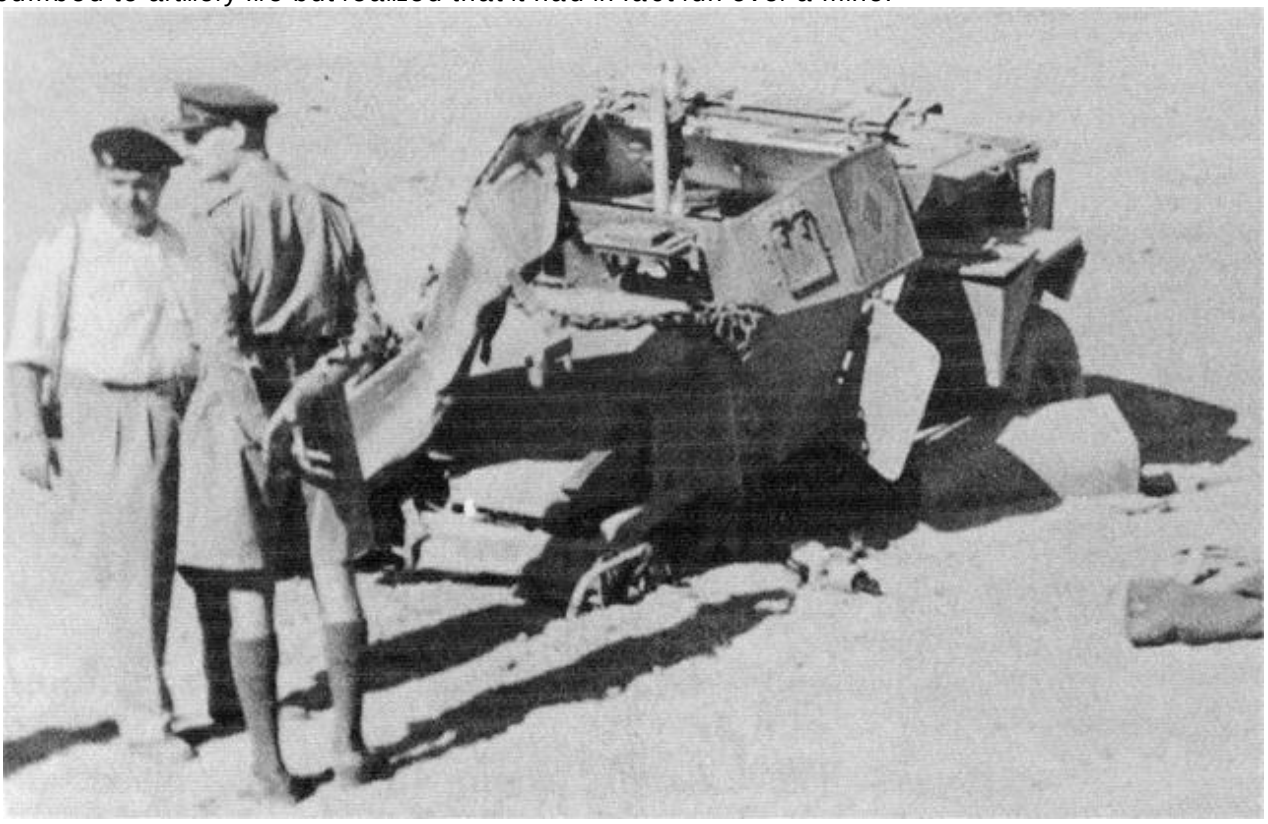
The bottom of the Dingo consisted of a lower 3-4mm thickness removable under shield with a secondary 2mm thickness floor pan. (The under shield was latter increased to 6mm thickness to increase protection against mine blast)
These two plates spaced a distance apart could to a limited extent be expected to act as a form of spaced armour.

It was anticipated that spaced armour reduces the penetrating power of bullets and solid shot as after penetrating the first plate they tend to tumble, deflect, deform, or disintegrate. This may have been successful against small arms and to some extent the blast effect of grenades but in reality was not sufficient to protect the crew from land mines.

I have heard two stories from veterans who both had involvement with the Inns of Court regiment that illustrate the vulnerability to mine damage, The first involved a Royal Engineer (72&73 Fld Coy RE) who being pinned down and finding it difficult to get off of the Beach on D-Day climbed with two others onto the back of a Dingo. They believed that this was one of the first to try and get off the beach.

The Dingo set of at a pace and had just reached the rear side of the sea wall embankment, when there was a large explosion that instantaneously killed the driver and the engineer who was holding onto the rear of the lip of the fighting compartment had his fingers severed by the blast coming from within.

The guys on the back called out to the commander inside the vehicle and he answered that he was OK, but was evidently in shock because when they pulled him out discovered that he had lost both legs. They found out some days latter when they returned that he had died. They had thought that the vehicle had succumbed to artillery fire but realized that it had in fact run over a mine.



(Image courtesy of Simon Hammon)
PHOTOGRAPHER: not known
Description: This photo is from Blindes 1940-1943 Profils et Histoire
It shows a Daimler Dingo **F9773** in the desert claiming to be from the 1re Division, which ended up on its roof following an explosion of a mine.
Circa 1942-43

The second story I have been told is of the second section of Inns of Court regiment who arrived onto the beachhead some days latter. This Driver had met upon the crews of the earlier landing and had been told in no uncertain terms to take a spanner and large hammer to both the commanders and drivers seats. So that they could be removed and thrown away.

Initially he refused because he was worried about ending up on a charge for damaging government property, but after a number of officers got together he was given permission. Subsequently the seats were ripped out and 'thrown in a ditch' and the floor lined with a thick layer of sand bags stolen from unoccupied German positions.

It was hoped that the layer of sandbags would increase protection and this was proven some months latter when the vehicle hit a mine with the front left wheel.
The wheel and wing were torn off and the car kicked upwards by the blast and so that the commander was thrown right out of the top of the car landing some distance away on the driver's side along with a downpour of sandbags. The driver was also thrown but was restrained within the car by becoming tangled up with the steering wheel.

Fortunately the commander suffered only minor cuts and bruises but the driver was not so lucky. However he survived and it was found that the sandbags had done there job of removing much of the shrapnel with would otherwise have caused more serous injuries.

By the end of the war the use of sandbags to line the bottom of both scout cars and armoured cars become common practice and is even recorded as being carried out by the 2nd Regiment of the Household Cavalry.

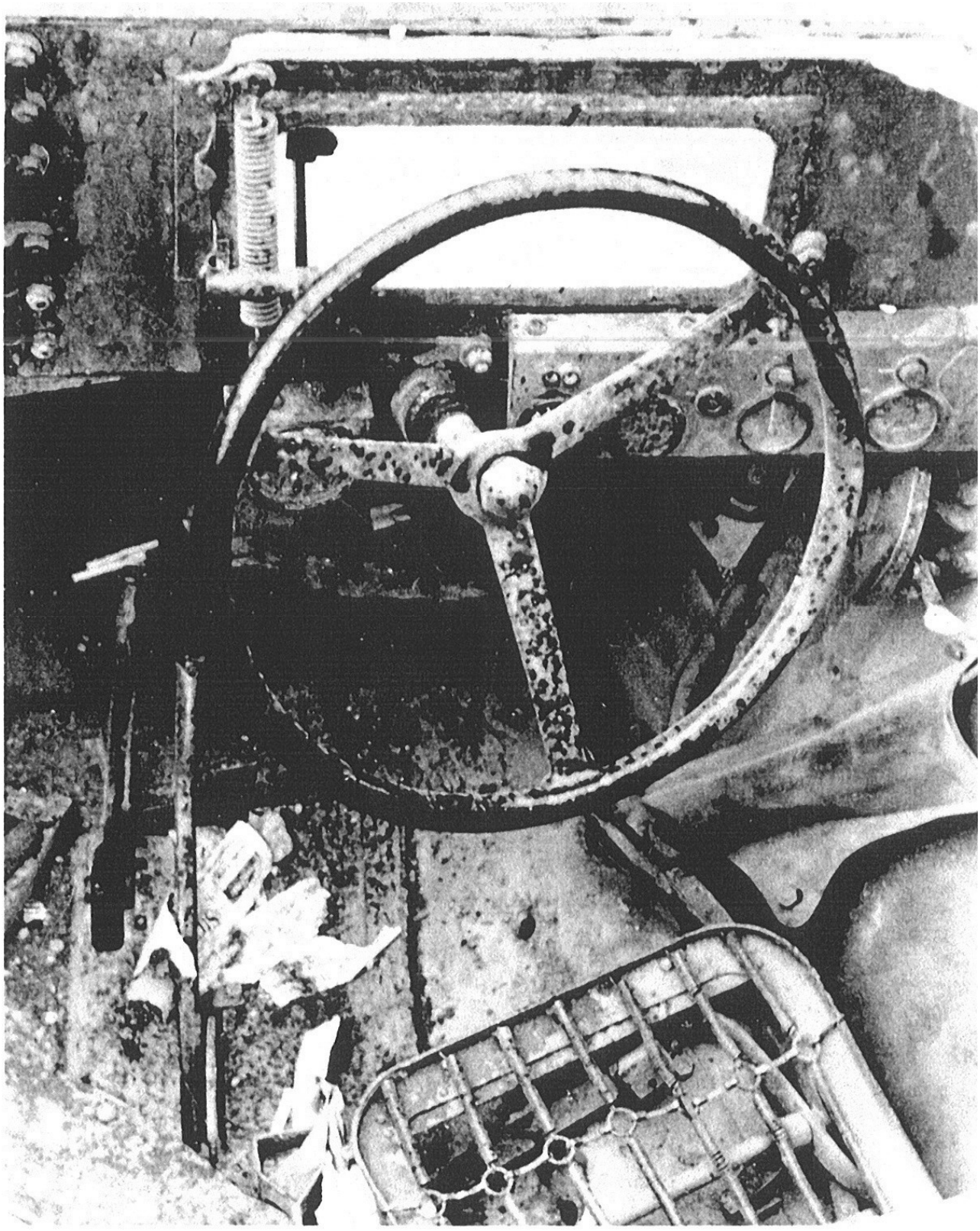
Photo Courtesy of the (internet source not recorded)
Photographer: Not known
Description: Yet another mined scout car (F9773) somewhere in North Africa

Another Trooper who was serving with Assault Engineers, attached to the Royal Air force was responsible for reconnaissance of possible airfield locations that could be located as close as practical allow the typhoons and tempests to the front lines or if possible use facilities recently abandoned by the Luftwaffe.

Having seen the damage caused by mines he and the other Engineers added another home made belly pan consisting of several layers of rubber sheeting sandwiched between plywood.
The Sapper swore by its effectiveness!

(Photo sourced from Internet, known to also exist in the Bovington Library-)

Description This Dingo (F47460) has run over a land mine in the North African Campaign, entirely removing the front bin, most of the wing and severely twisting the chassis and cracking the armoured plate at the back of the cabin to the rear of the fuel tank.



(Photo sourced from Internet, known to also exist in the Bovington Library-)

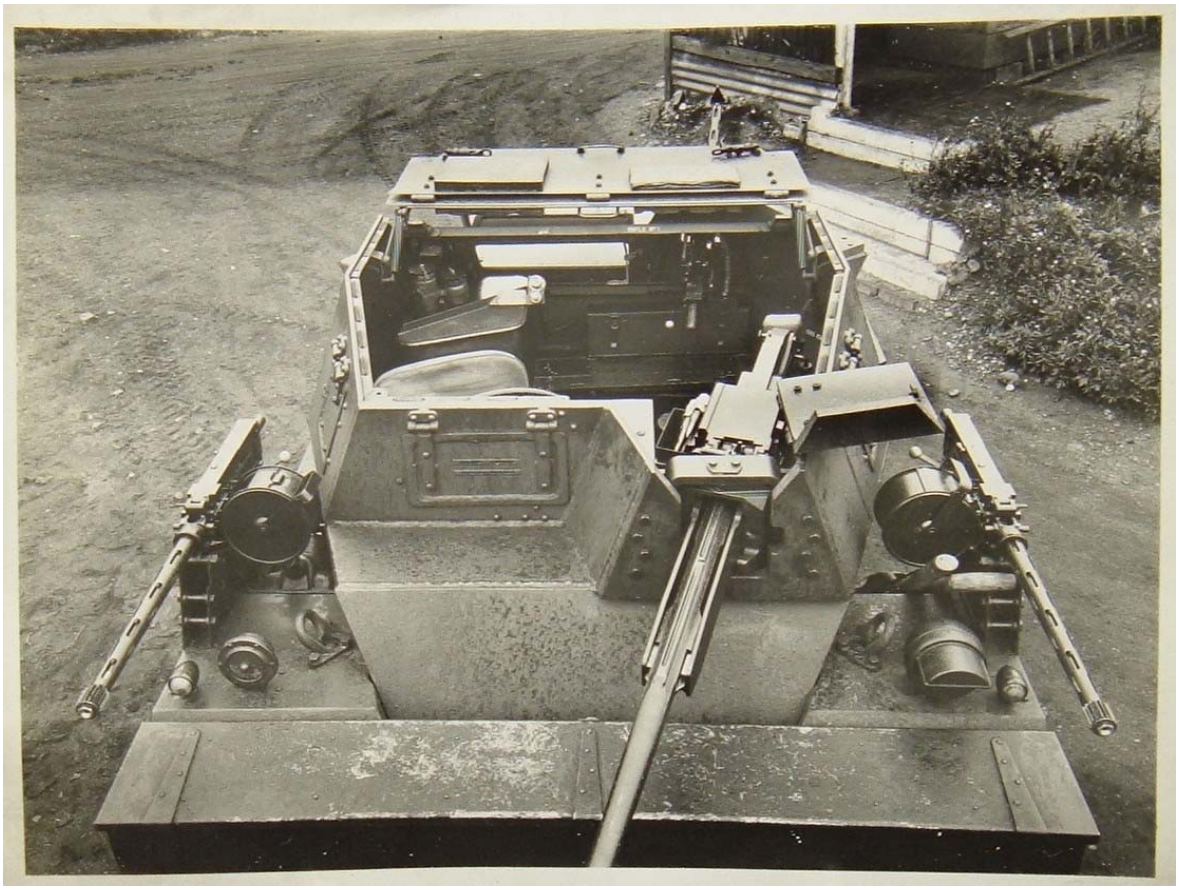
Description: The interior of the car (F47460) has been peppered with mine fragments; holes can be seen to penetrate the floor both directly in front of and below the driver's seat.
It is also presumed that the force of the blast shredded the papers contained within the fighting compartment and removed the leather cover to the drivers seat.
Evidence of the twisting of the whole body can be seen by the gear change tunnel that has been torn from its bolted mounting points.

(Image courtesy Bovington Tank Museum)

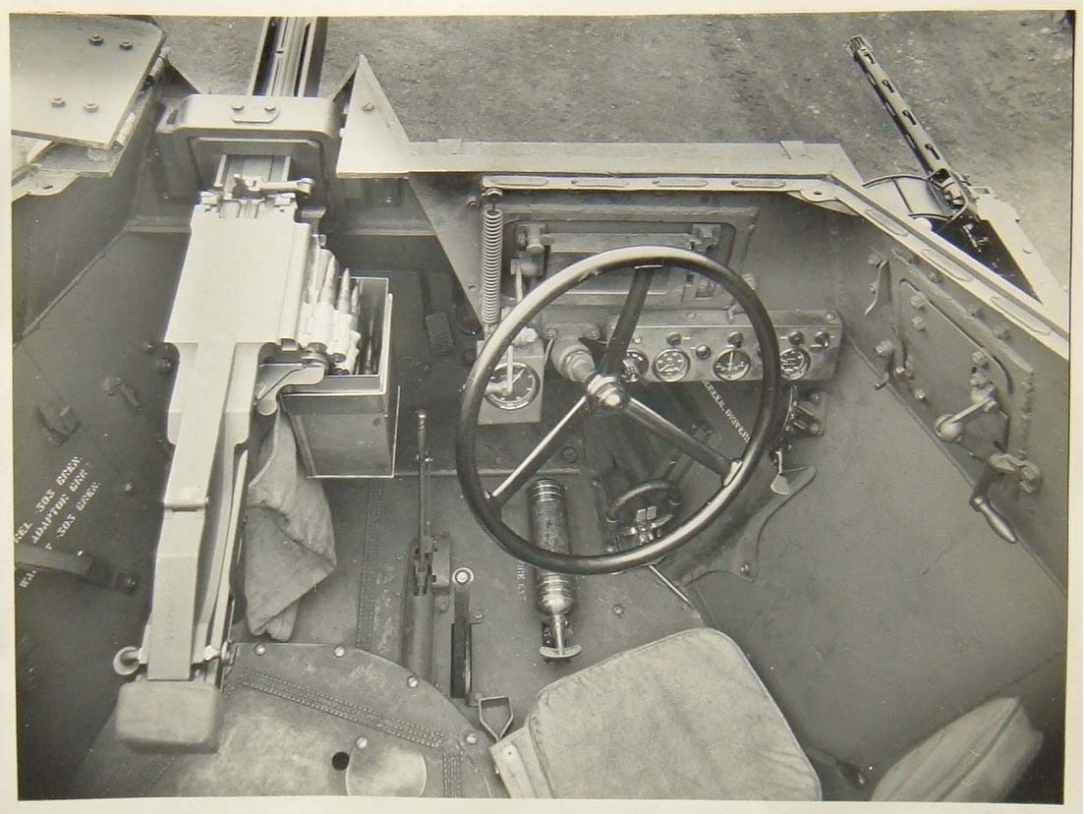
Description: bin the 1950's trials were held to fit more effective armament and also increase the level of protection; this was necessitated by the use of the vehicles in enclosed locations such as the Jungles of Malaya.

(Image courtesy Simon Hamon unknown source)
Description: this photo of Dingo F340589 shows a strange framework above the turret, possibly for the addition of wading screens but the assembly does not look to be robust enough to resist much water pressure? Also odd are the two studs welded to the frontal armour above the front bin.
Date Unknown.

(Image courtesy of Rob Lloyd, unknown source)
Description: What is presumably the most heavily armed Dingo (F48379) ever created.
Specification, twin aircraft 303 sponson mounted browning MGs, single 303 browning MG to the rear and a .5 BESA heavy MG as main armament!
Date Unknown.



(Image courtesy of Rob Lloyd, unknown source)
Description: Words defy me!
Date Unknown.



(Image courtesy of Rob Lloyd, unknown source)
Description: Note the joy stick from a spitfire on the floor between the drivers legs than contains the firing triggers for the twin brownings.
Date Unknown.